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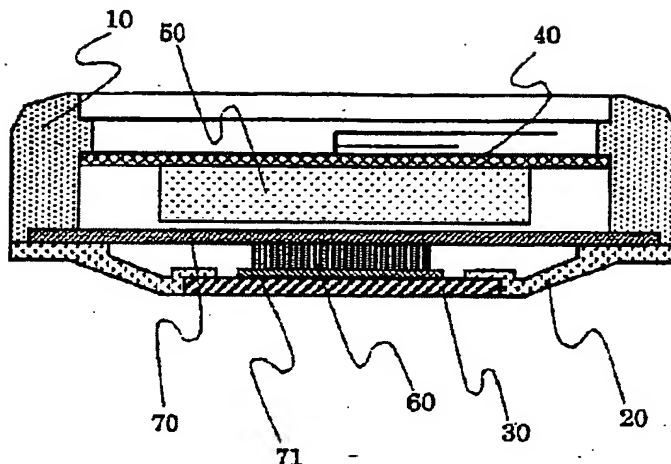
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APPLICANT : CITIZEN WATCH CO LTD;

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TITLE : THERMAL POWER GENERATING
WRIST WATCH



ABSTRACT : PROBLEM TO BE SOLVED: To improve the power generating efficiency by suppressing the thermal resistance between the low temperature side of a thermoelectric element and a radiation metal case and between the high temperature side and a case back, and increasing the temperature difference of the thermoelectric element in a thermal power generation wrist watch having the thermoelectric element.

SOLUTION: This thermal power generation wrist watch is provided with the metal case 10, the case back 30, a heat insulator 20, a dial 40, a movement 50, the thermoelectric element 60 comprising a column of a p-type thermoelectric semiconductor, an n-type thermoelectric semiconductor, and a wiring electrode, and an upper heat transfer plate 70 and a lower heat transfer plate 71 arranged on the upper and lower faces of the thermoelectric element 60. The thermoelectric element 60 is located between the movement 50 and the case back 30, the upper heat transfer plate 70 is kept in thermal contact with the metal case 10, and the lower heat transfer plate 71 is kept in thermal contact with the case back 30. The heat insulator 20 is located below the upper heat transfer plate 70, the upper heat transfer plate 70 resembles the dial 40 in shape as compared with the square thermoelectric element 60, and the external shapes of them are made quite different.

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